

R E M A R K S

BEST AVAILABLE COPY

In the Office Action, claim 6 was rejected under 35 USC 112, second paragraph, as being indefinite for the reasons stated on page 2 of the Office Action. Claims 1, 13-17, 26 and 28 were rejected under 35 USC 102 as anticipated by Epple '464 on the grounds set forth on pages 2-3 of the Office Action. Claims 1, 3 and 26 were rejected under 35 USC 102 as anticipated by Lowell '819 for the reasons stated on page 4 of the Office Action. Claims 1, 3, 14 and 26 were rejected under 35 USC 102 as anticipated by Merkel et al '051 for the reasons stated on page 4 of the Office Action. Claim 25 was rejected under 35 USC 102 as anticipated by Molari '375 on the grounds set forth on page 5 of the Office Action.

Claim 2 was rejected under 35 USC 103(a) as unpatentable over either Molari '375 or Epple et al '464 in view of Japanese publication 61261151 (Makoto) for the reasons stated on page 6 of the Office Action. Claim 5 was rejected under 35 USC 103(a) as unpatentable over Lowell '819 in view of Edwards '337 on the grounds set forth on pages 6 and 7 of the Office Action. Claim 6 was rejected under 35 USC 103(a) as unpatentable over Lowell '819 in view of Keen '424 for the reasons stated on pages 7 and 8 of the Office Action. Claim 27 was rejected under 35 USC 103(a) as unpatentable over Epple et al '446 in view of Edwards '337 on the grounds set forth on page 8 of the Office Action. Claim 29 was rejected under 35 USC 103(a) as unpatentable over Epple et al '464 in view of Molari '375 for the reasons stated on page 9 of the Office Action.

The following argument is presented to show allowable subject matter in the claims.

Makoto discloses a spreader device for a fluid with an auxiliary fluid and an auxiliary fluid inlet port. Due to the second inlet port such a device needs a lot of space. This device is unfit for a headlamp cleaning system with a movable arm.

Molari discloses a washing arm with a lot of nozzles. Many nozzles are necessary to clean the whole headlamp due to the complicated shape of headlamps today. Such a washing arm is expensive, difficult to mount and to adjust.

Epple discloses a moveable washing arm with one nozzle. Such a device is unable to clean the whole headlamp with a complicated shape.

Both solutions are disadvantageous.

The foregoing references Makoto, Molari, and Epple were employed in the rejection of claim 2. Claim 2 has been cancelled, and its subject matter is inserted by this amendment into claim 1. Accordingly, the foregoing applies now to claim 1.

The present device with a moveable washing arm and a fluidic nozzle with a washing fluid jet oscillating essentially transversely to the direction of movement of the washing arm achieve the best results. Only one nozzle is necessary to clean a complex shape of a headlamp.

The Nakoto teaching of a fluidic nozzle differs from the present nozzle in that the changing of position of the output water jet is accomplished by introduction of an additional stream of water at a separate intake port 14 to the flow passage 12. Water

enters passage 12 at two locations 11 and 14. This makes for an awkward structure, unacceptable for the present washer device.

The present nozzle employs a swirl chamber with return ducts to an inlet region of the swirl chamber to induce oscillation of an emerging fluid washing jet, as is explained in present Figs. 3a and 3b with accompanying text at page 11, lines 1-18 of the present specification. This structure is advantageous for use in the washer system in that only one fluid input is provided to the swirl chamber.

In order to distinguish the present structure from Nakato, details in the construction of the present nozzle have been inserted also into claim 1.

For these reasons it is believed that the present invention, as set forth in claim 1, is new and not obvious in view of the combined teachings of Molari, Epple and Makoto. Similar amendment is made to independent claim 25. Accordingly, claims 1 and 25 and their respective dependent claims are believed to set forth subject matter not taught or suggested by the cited art considered individually or in combination.

Accordingly, this amendment is believed to overcome the rejections under 35 USC 102 and 103 to secure allowance of the claims.

With respect to the rejection of claim 6 under 35 USC 112, the alternative subject matter is cancelled in claim 6, and is presented in a new claim 30. This is believed to overcome the rejection under 35 USC 112.

BEST AVAILABLE COPY


Deposit Account Charge forms are presented for the total Government fee of \$18 for presenting 1 extra total claims in excess of twenty claims.

In the event there are further issues remaining the Examiner is respectfully requested to telephone attorney to reach agreement to expedite issuance of this application.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with markings to show changes made"

Since the present claims set forth the present invention patentably and distinctly, and are not taught by the cited art either taken alone or in combination, this amendment is now believed to place this case in condition for allowance and the Examiner is respectfully requested to reconsider the matter, enter this amendment, and to allow all of the claims in this case.


Respectfully submitted,
Joachim Banderer, et al

by: 
MARTIN A. FARBER
Attorney for Applicants
Registered Representative
Registration No. 22,345

CERTIFICATE OF MAILING UNDER 37 CFR SECTION 1.8(a)

I hereby certify that the accompanying Amendment Upon Final Rejection is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents & Trademarks, Washington, D.C. 20231, on December 20, 2001.

Dated: December 20, 2001


Martin A. Farber

866 United Nations Plaza
Suite 473
New York, NY 10017
(212) 758-2878

USA National Stage Patent Application
PCT/EP97/05478 filed October 6, 1997
Joachim Bandemer, et al
Serial No.: 09/308,314
Filed: May 13, 1999
SHIELD CLEANING SYSTEM, OPERATING ...
Examiner: Gary K. Graham
Group art unit: 1744



RECEIVED
JAN 03 2002
TC 1700

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please cancel claim 2 without prejudice or disclaimer of the
subject matter therein, and amend claims 1, 6 and 25 as follows:

1. (three times amended) A shield
cleaning system, operating solely by spraying with washing fluid,
for shields of an automobile, comprising

an electric motor,

a washing arm movable over and at a
distance from the shield by said electric motor, and

a washing nozzle arranged on the washing
arm for spraying washing fluid onto the shield, wherein the
washing nozzle (12-14, 25, 38, 50, 54, 63) is formed for spraying
a part region of the shield (2, 34, 49, 55, 65) and is movable by
the washing arm (6, 37, 48, 53) over a region of the shield (2,
34, 49, 55, 65) which is to be cleaned, wherein the washing
nozzle has an outlet opening facing said shield in and defining
all spraying positions of the nozzle and that of the washing arm

BEST AVAILABLE COPY

immediately during movement of the washing arm from a basic position, and the washing nozzle is sprayable on at least portions of the shield immediately during all of said movement of the washing arm; and

wherein the washing nozzle (12-14, 25, 38, 50, 54, 63) is a fluidic nozzle with a washing fluid jet oscillating essentially transversely to the direction of movement of the washing arm (6, 37, 48, 53), the fluidic nozzle comprising a swirl chamber with return ducts to an inlet region of the swirl chamber to induce oscillation of an emerging fluid washing jet.

6. (three times amended) The shield cleaning system as claimed in claim 3, wherein a heating element comprising a resistance wire 15 is arranged in the washing fluid duct (8) [or at the washing nozzles (12-14)].

25. (three times amended) A shield cleaning system, operating solely by spraying with washing fluid, for shields of an automobile, comprising

a motor,

a washing arm component (60) movable over and at a distance from the shield by said motor, and a washing nozzle arranged on the washing arm component for spraying washing fluid onto the shield, wherein the washing nozzle has an outlet opening facing said shield in and defining all spraying

positions of the nozzle and that of the washing arm component immediately during movement of the washing arm component from a basic position, and the washing nozzle is sprayable on at least portions of the shield immediately during all of said movement of the washing arm component, and wherein

the motor (61) for moving the washing arm component (60) is a motor (61) driven by the washing fluid, wherein the washing nozzle (12-14, 25, 38, 50, 54, 63) is a fluidic nozzle with a washing fluid jet oscillating essentially transversely to the direction of movement of the washing arm (6, 37, 48, 53), the fluidic nozzle comprising a swirl chamber with return ducts to an inlet region of the swirl chamber to induce oscillation of an emerging fluid washing jet.